1 Appendix Tables

This vignette verifies the accuracy of the `makehams` package by matching the Appendix Tables presented in "Actuarial Mathematics for Life Contingent Risks" (Second Edition).

1.1 Life Tables

x	$l_{[x]}$	$l_{[x]+1}$	l_{x+2}	x+2
			100,000.00	20
			99,975.04	21
20	99,995.08	99,973.75	99,949.71	22
21	99,970.04	99,948.40	99,923.98	23
22	99,944.63	99,922.65	99,897.79	24
23	99,918.81	99,896.43	99,871.08	25
24	99,892.52	99,869.70	99,843.80	26
25	99,865.69	99,842.38	99,815.86	27
26	99,838.28	99,814.41	99,787.20	28
27	99,810.20	99,785.70	99,757.71	29
28	99,781.36	99,756.17	99,727.29	30
29	99,751.69	99,725.70	99,695.83	31
30	99,721.06	99,694.18	99,663.20	32
31	99,689.36	99,661.48	99,629.26	33
32	99,656.47	99,627.47	99,593.83	34
33	99,622.23	99,591.96	99,556.75	35
34	99,586.47	99,554.78	99,517.80	36
35	99,549.01	99,515.73	99,476.75	37
36	99,509.64	99,474.56	99,433.34	38
37	99,468.12	99,431.02	99,387.29	39
38	99,424.18	99,384.82	99,338.26	40
39	99,377.52	99,335.62	99,285.88	41
40	99,327.82	99,283.06	99,229.76	42
41	99,274.69	99,226.72	99,169.41	43
42	99,217.72	99,166.14	99,104.33	44
43	99,156.42	99,100.80	99,033.94	45
44	99,090.27	99,030.10	98,957.57	46
45	99,018.67	98,953.40	98,874.50	47
46	98,940.96	98,869.96	98,783.91	48
47	98,856.38	98,778.94	98,684.88	49

x	$l_{[x]}$	$l_{[x]+1}$	l_{x+2}	x+2
48	98,764.09	98,679.44	98,576.37	50
49	98,663.15	98,570.40	98,457.24	51
50	98,552.51	98,450.67	98,326.19	52
51	98,430.98	98,318.95	98,181.77	53
52	98,297.24	98,173.79	98,022.38	54
53	98,149.81	98,013.56	97,846.20	55
54	97,987.03	97,836.44	97,651.21	56
55	97,807.07	97,640.40	97,435.17	57
56	97,607.84	97,423.18	97,195.56	58
57	97,387.05	97,182.25	96,929.59	59
58	97,142.13	96,914.80	96,634.14	60
59	96,870.22	96,617.70	96,305.75	61
60	96,568.13	96,287.48	95,940.60	62
61	96,232.34	95,920.27	95,534.43	63
62	95,858.91	95,511.80	95,082.53	64
63	95,443.51	95,057.36	94,579.73	65
64	94,981.34	94,551.72	94,020.33	66
65	94,467.11	93,989.16	93,398.05	67
66	93,895.00	93,363.38	92,706.06	68
67	93,258.63	92,667.50	91,936.88	69
68	92,551.02	91,894.03	91,082.43	70
69	91,764.58	91,034.84	90,133.96	71
70	90,891.07	90,081.15	89,082.09	72
71	89,921.62	89,023.56	87,916.84	73
72	88,846.72	87,852.03	86,627.64	74
73	87,656.25	86,555.99	85,203.46	75
74	86,339.55	85,124.37	83,632.89	76
75	84,885.49	83,545.75	81,904.34	77
76	83,282.61	81,808.54	80,006.23	78
77	81,519.30	79,901.17	77,927.35	79
78	79,584.04	77,812.44	75,657.16	80
79	77,465.70	75,531.88	73,186.31	81
80	75,153.97	73,050.22	70,507.19	82

Table D.1

1.2 Insurance and annuity tables

x	$\ddot{a}_{[x]}$	$\ddot{a}_{[x]+1}$	$\ddot{a}_{x+2}$	$A_{[x]}$	$A_{[x]+1}$	A_{x+2}	$x+2$
20	19.96732	19.91993	19.87070	0.04918	0.05143	0.05378	22
21	19.92062	19.87095	19.81934	0.05140	0.05376	0.05622	23
22	19.87165	19.81959	19.76549	0.05373	0.05621	0.05879	24
23	19.82030	19.76574	19.70903	0.05618	0.05877	0.06147	25
24	19.76647	19.70929	19.64985	0.05874	0.06146	0.06429	26
25	19.71003	19.65012	19.58783	0.06143	0.06428	0.06725	27
26	19.65087	19.58810	19.52282	0.06424	0.06723	0.07034	28
27	19.58887	19.52310	19.45471	0.06720	0.07033	0.07359	29
28	19.52389	19.45500	19.38336	0.07029	0.07357	0.07698	30
29	19.45581	19.38365	19.30862	0.07353	0.07697	0.08054	31
30	19.38449	19.30892	19.23034	0.07693	0.08053	0.08427	32
31	19.30979	19.23066	19.14838	0.08049	0.08425	0.08817	33
32	19.23156	19.14871	19.06258	0.08421	0.08816	0.09226	34
33	19.14965	19.06292	18.97277	0.08811	0.09224	0.09653	35
34	19.06390	18.97313	18.87880	0.09220	0.09652	0.10101	36
35	18.97415	18.87917	18.78049	0.09647	0.10099	0.10569	37
36	18.88024	18.78088	18.67766	0.10094	0.10567	0.11059	38
37	18.78201	18.67807	18.57014	0.10562	0.11057	0.11571	39
38	18.67927	18.57058	18.45776	0.11051	0.11569	0.12106	40
39	18.57184	18.45822	18.34031	0.11563	0.12104	0.12665	41
40	18.45956	18.34081	18.21763	0.12097	0.12663	0.13249	42
41	18.34224	18.21815	18.08951	0.12656	0.13247	0.13859	43
42	18.21969	18.09007	17.95577	0.13240	0.13857	0.14496	44
43	18.09172	17.95637	17.81621	0.13849	0.14493	0.15161	45
44	17.95814	17.81686	17.67065	0.14485	0.15158	0.15854	46
45	17.81876	17.67135	17.51889	0.15149	0.15851	0.16577	47
46	17.67340	17.51965	17.36074	0.15841	0.16573	0.17330	48
47	17.52187	17.36156	17.19602	0.16563	0.17326	0.18114	49
48	17.36397	17.19691	17.02453	0.17314	0.18110	0.18931	50
49	17.19952	17.02551	16.84612	0.18098	0.18926	0.19780	51
50	17.02835	16.84718	16.66060	0.18913	0.19775	0.20664	52
51	16.85028	16.66175	16.46782	0.19761	0.20658	0.21582	53
52	16.66514	16.46908	16.26762	0.20642	0.21576	0.22535	54
53	16.47277	16.26899	16.05987	0.21558	0.22529	0.23524	55

x	$\ddot{a}_{[x]}$	$\ddot{a}_{[x]+1}$	$\ddot{a}_{x+2}$	$A_{[x]}$	$A_{[x]+1}$	A_{x+2}	$x+2$
54	16.27303	16.06137	15.84443	0.22509	0.23517	0.24550	56
55	16.06579	15.84608	15.62122	0.23496	0.24542	0.25613	57
56	15.85091	15.62302	15.39012	0.24519	0.25605	0.26714	58
57	15.62831	15.39210	15.15109	0.25579	0.26704	0.27852	59
58	15.39789	15.15325	14.90407	0.26677	0.27842	0.29028	60
59	15.15960	14.90644	14.64906	0.27811	0.29017	0.30243	61
60	14.91340	14.65165	14.38606	0.28984	0.30230	0.31495	62
61	14.65927	14.38890	14.11512	0.30194	0.31481	0.32785	63
62	14.39724	14.11822	13.83632	0.31442	0.32770	0.34113	64
63	14.12736	13.83972	13.54979	0.32727	0.34097	0.35477	65
64	13.84972	13.55351	13.25568	0.34049	0.35459	0.36878	66
65	13.56444	13.25975	12.95420	0.35407	0.36858	0.38313	67
66	13.27169	12.95864	12.64561	0.36801	0.38292	0.39783	68
67	12.97168	12.65045	12.33019	0.38230	0.39760	0.41285	69
68	12.66467	12.33547	12.00830	0.39692	0.41260	0.42818	70
69	12.35097	12.01406	11.68035	0.41186	0.42790	0.44379	71
70	12.03093	11.68661	11.34678	0.42710	0.44349	0.45968	72
71	11.70495	11.35359	11.00812	0.44262	0.45935	0.47580	73
72	11.37350	11.01550	10.66491	0.45840	0.47545	0.49215	74
73	11.03709	10.67291	10.31778	0.47442	0.49177	0.50868	75
74	10.69629	10.32644	9.96740	0.49065	0.50826	0.52536	76
75	10.35171	9.97676	9.61449	0.50706	0.52492	0.54217	77
76	10.00402	9.62458	9.25981	0.52362	0.54169	0.55906	78
77	9.65395	9.27067	8.90416	0.54029	0.55854	0.57599	79
78	9.30225	8.91584	8.54841	0.55704	0.57544	0.59293	80
79	8.94973	8.56093	8.19341	0.57382	0.59234	0.60984	81
80	8.59722	8.20681	7.84008	0.59061	0.60920	0.62666	82

Table D.2 / Table D.3 (Annuities and Insurances)

x	${}_5E_{[x]}$	${}_5E_{[x]+1}$	${}_5E_{x+2}$	${}_{10}E_{[x]}$	${}_{10}E_{[x]+1}$	${}_{10}E_{x+2}$	${}_{20}E_{[x]}$	${}_{20}E_{[x]+1}$	${}_{20}E_{x+2}$	$x+2$
20	0.7826	0.7825	0.7825	0.6123	0.6122	0.6122	0.3744	0.3743	0.3742	22
21	0.7825	0.7825	0.7825	0.6122	0.6122	0.6121	0.3743	0.3742	0.3740	23
22	0.7825	0.7825	0.7824	0.6122	0.6121	0.6120	0.3742	0.3740	0.3739	24
23	0.7825	0.7824	0.7824	0.6121	0.6121	0.6120	0.3741	0.3739	0.3737	25
24	0.7825	0.7824	0.7824	0.6121	0.6120	0.6119	0.3739	0.3737	0.3735	26
25	0.7824	0.7824	0.7823	0.6120	0.6119	0.6118	0.3738	0.3735	0.3733	27

x	${}_5E_{[x]}$	${}_5E_{[x]+1}$	${}_5E_{x+2}$	${}_{10}E_{[x]}$	${}_{10}E_{[x]+1}$	${}_{10}E_{x+2}$	${}_{20}E_{[x]}$	${}_{20}E_{[x]+1}$	${}_{20}E_{x+2}$	$x+2$
26	0.7824	0.7823	0.7823	0.6119	0.6118	0.6117	0.3736	0.3733	0.3731	28
27	0.7824	0.7823	0.7822	0.6119	0.6117	0.6116	0.3734	0.3731	0.3728	29
28	0.7823	0.7823	0.7822	0.6118	0.6116	0.6115	0.3731	0.3728	0.3725	30
29	0.7823	0.7822	0.7821	0.6117	0.6115	0.6114	0.3729	0.3725	0.3722	31
30	0.7822	0.7821	0.7821	0.6116	0.6114	0.6112	0.3726	0.3722	0.3718	32
31	0.7822	0.7821	0.7820	0.6114	0.6113	0.6111	0.3722	0.3718	0.3714	33
32	0.7821	0.7820	0.7819	0.6113	0.6111	0.6109	0.3719	0.3714	0.3709	34
33	0.7820	0.7819	0.7818	0.6111	0.6109	0.6107	0.3714	0.3709	0.3704	35
34	0.7820	0.7818	0.7817	0.6109	0.6107	0.6105	0.3710	0.3704	0.3698	36
35	0.7819	0.7817	0.7816	0.6107	0.6105	0.6102	0.3704	0.3698	0.3692	37
36	0.7818	0.7816	0.7814	0.6105	0.6102	0.6099	0.3699	0.3692	0.3684	38
37	0.7816	0.7815	0.7813	0.6102	0.6099	0.6096	0.3692	0.3684	0.3676	39
38	0.7815	0.7813	0.7811	0.6100	0.6096	0.6092	0.3684	0.3676	0.3666	40
39	0.7814	0.7811	0.7809	0.6096	0.6092	0.6088	0.3676	0.3666	0.3656	41
40	0.7812	0.7810	0.7807	0.6093	0.6088	0.6083	0.3667	0.3656	0.3644	42
41	0.7810	0.7807	0.7805	0.6089	0.6083	0.6078	0.3656	0.3644	0.3631	43
42	0.7808	0.7805	0.7802	0.6084	0.6078	0.6072	0.3644	0.3631	0.3616	44
43	0.7806	0.7802	0.7799	0.6079	0.6072	0.6066	0.3631	0.3616	0.3599	45
44	0.7803	0.7799	0.7796	0.6073	0.6066	0.6058	0.3616	0.3600	0.3581	46
45	0.7800	0.7796	0.7792	0.6066	0.6058	0.6050	0.3600	0.3581	0.3560	47
46	0.7797	0.7792	0.7788	0.6059	0.6050	0.6040	0.3581	0.3560	0.3537	48
47	0.7793	0.7788	0.7783	0.6051	0.6041	0.6030	0.3561	0.3537	0.3511	49
48	0.7789	0.7783	0.7777	0.6042	0.6030	0.6018	0.3538	0.3511	0.3482	50
49	0.7784	0.7778	0.7771	0.6031	0.6019	0.6005	0.3512	0.3483	0.3450	51
50	0.7779	0.7772	0.7764	0.6020	0.6005	0.5990	0.3483	0.3451	0.3415	52
51	0.7773	0.7765	0.7757	0.6007	0.5991	0.5974	0.3451	0.3415	0.3375	53
52	0.7767	0.7757	0.7748	0.5992	0.5974	0.5955	0.3416	0.3375	0.3331	54
53	0.7759	0.7749	0.7738	0.5976	0.5956	0.5934	0.3376	0.3331	0.3282	55
54	0.7751	0.7739	0.7727	0.5957	0.5935	0.5911	0.3332	0.3282	0.3228	56
55	0.7741	0.7728	0.7715	0.5937	0.5912	0.5885	0.3283	0.3228	0.3168	57
56	0.7731	0.7716	0.7701	0.5913	0.5885	0.5856	0.3229	0.3169	0.3102	58
57	0.7719	0.7702	0.7686	0.5888	0.5856	0.5823	0.3170	0.3103	0.3030	59
58	0.7706	0.7687	0.7669	0.5859	0.5824	0.5786	0.3104	0.3030	0.2951	60
59	0.7691	0.7670	0.7649	0.5826	0.5787	0.5746	0.3032	0.2951	0.2864	61
60	0.7674	0.7651	0.7628	0.5790	0.5747	0.5700	0.2953	0.2865	0.2770	62
61	0.7655	0.7629	0.7603	0.5750	0.5701	0.5650	0.2866	0.2770	0.2667	63

x	${}_5E_{[x]}$	${}_5E_{[x]+1}$	${}_5E_{x+2}$	${}_{10}E_{[x]}$	${}_{10}E_{[x]+1}$	${}_{10}E_{x+2}$	${}_{20}E_{[x]}$	${}_{20}E_{[x]+1}$	${}_{20}E_{x+2}$	$x+2$
62	0.7634	0.7605	0.7576	0.5705	0.5651	0.5593	0.2772	0.2668	0.2557	64
63	0.7611	0.7578	0.7546	0.5655	0.5595	0.5531	0.2670	0.2558	0.2438	65
64	0.7584	0.7548	0.7511	0.5599	0.5532	0.5461	0.2560	0.2439	0.2311	66
65	0.7555	0.7514	0.7473	0.5537	0.5463	0.5384	0.2441	0.2312	0.2176	67
66	0.7521	0.7476	0.7430	0.5468	0.5386	0.5298	0.2314	0.2177	0.2034	68
67	0.7484	0.7434	0.7383	0.5392	0.5300	0.5204	0.2180	0.2035	0.1886	69
68	0.7443	0.7386	0.7330	0.5307	0.5206	0.5099	0.2038	0.1886	0.1731	70
69	0.7397	0.7333	0.7270	0.5213	0.5102	0.4985	0.1889	0.1732	0.1573	71
70	0.7345	0.7274	0.7204	0.5110	0.4988	0.4859	0.1735	0.1574	0.1412	72
71	0.7287	0.7209	0.7130	0.4997	0.4862	0.4721	0.1577	0.1413	0.1251	73
72	0.7223	0.7136	0.7048	0.4872	0.4725	0.4571	0.1416	0.1252	0.1092	74
73	0.7151	0.7054	0.6957	0.4735	0.4575	0.4409	0.1255	0.1093	0.0937	75
74	0.7072	0.6964	0.6857	0.4587	0.4413	0.4232	0.1095	0.0938	0.0789	76
75	0.6983	0.6864	0.6745	0.4425	0.4237	0.4043	0.0940	0.0790	0.0650	77
76	0.6885	0.6753	0.6622	0.4250	0.4047	0.3840	0.0792	0.0651	0.0523	78
77	0.6777	0.6630	0.6486	0.4062	0.3845	0.3624	0.0653	0.0524	0.0410	79
78	0.6657	0.6495	0.6336	0.3860	0.3629	0.3395	0.0526	0.0410	0.0311	80
79	0.6525	0.6347	0.6173	0.3645	0.3401	0.3156	0.0412	0.0312	0.0229	81
80	0.6379	0.6184	0.5994	0.3418	0.3161	0.2906	0.0313	0.0229	0.0162	82

Table D.2 / Table D.3 (Pure endowment insurances)

x	${}^2\ddot{a}_{[x]}$	${}^2\ddot{a}_{[x]+1}$	${}^2\ddot{a}_{x+2}$	${}^2A_{[x]}$	${}^2A_{[x]+1}$	${}^2A_{x+2}$	$x+2$
20	10.69420	10.69013	10.68594	0.00576	0.00613	0.00652	22
21	10.69048	10.68606	10.68150	0.00610	0.00651	0.00694	23
22	10.68642	10.68163	10.67665	0.00648	0.00692	0.00739	24
23	10.68199	10.67678	10.67136	0.00689	0.00737	0.00788	25
24	10.67715	10.67149	10.66559	0.00734	0.00787	0.00841	26
25	10.67187	10.66572	10.65929	0.00783	0.00840	0.00900	27
26	10.66611	10.65943	10.65243	0.00837	0.00899	0.00964	28
27	10.65983	10.65257	10.64495	0.00895	0.00962	0.01033	29
28	10.65298	10.64510	10.63680	0.00959	0.01032	0.01109	30
29	10.64551	10.63695	10.62792	0.01028	0.01108	0.01192	31
30	10.63738	10.62808	10.61826	0.01104	0.01190	0.01281	32
31	10.62853	10.61842	10.60774	0.01186	0.01280	0.01379	33
32	10.61889	10.60792	10.59630	0.01276	0.01378	0.01486	34
33	10.60840	10.59648	10.58387	0.01373	0.01484	0.01601	35

x	${}^{2}\ddot{a}_{[x]}$	${}^{2}\ddot{a}_{[x]+1}$	${}^{2}\ddot{a}_{x+2}$	${}^{2}A_{[x]}$	${}^{2}A_{[x]+1}$	${}^{2}A_{x+2}$	$x+2$
34	10.59700	10.58406	10.57035	0.01479	0.01599	0.01727	36
35	10.58459	10.57055	10.55566	0.01594	0.01725	0.01863	37
36	10.57111	10.55587	10.53972	0.01720	0.01862	0.02012	38
37	10.55647	10.53994	10.52241	0.01856	0.02010	0.02173	39
38	10.54057	10.52265	10.50364	0.02004	0.02170	0.02347	40
39	10.52332	10.50389	10.48329	0.02164	0.02345	0.02536	41
40	10.50461	10.48356	10.46124	0.02338	0.02534	0.02741	42
41	10.48433	10.46153	10.43737	0.02527	0.02739	0.02963	43
42	10.46236	10.43768	10.41153	0.02731	0.02960	0.03203	44
43	10.43857	10.41186	10.38359	0.02952	0.03200	0.03463	45
44	10.41283	10.38395	10.35339	0.03191	0.03460	0.03744	46
45	10.38499	10.35378	10.32077	0.03450	0.03740	0.04047	47
46	10.35492	10.32120	10.28558	0.03730	0.04043	0.04374	48
47	10.32244	10.28604	10.24762	0.04032	0.04370	0.04727	49
48	10.28739	10.24813	10.20673	0.04358	0.04723	0.05108	50
49	10.24960	10.20728	10.16270	0.04709	0.05102	0.05517	51
50	10.20889	10.16331	10.11534	0.05087	0.05511	0.05957	52
51	10.16508	10.11601	10.06444	0.05495	0.05951	0.06430	53
52	10.11795	10.06518	10.00980	0.05933	0.06424	0.06938	54
53	10.06731	10.01061	9.95119	0.06404	0.06931	0.07483	55
54	10.01296	9.95208	9.88839	0.06909	0.07475	0.08067	56
55	9.95467	9.88937	9.82118	0.07451	0.08058	0.08692	57
56	9.89223	9.82226	9.74932	0.08031	0.08682	0.09360	58
57	9.82541	9.75052	9.67260	0.08653	0.09349	0.10073	59
58	9.75400	9.67392	9.59077	0.09317	0.10061	0.10834	60
59	9.67776	9.59223	9.50362	0.10025	0.10820	0.11644	61
60	9.59647	9.50524	9.41093	0.10781	0.11629	0.12506	62
61	9.50992	9.41271	9.31247	0.11586	0.12490	0.13421	63
62	9.41788	9.31444	9.20806	0.12441	0.13403	0.14392	64
63	9.32015	9.21023	9.09749	0.13350	0.14372	0.15420	65
64	9.21653	9.09989	8.98060	0.14313	0.15398	0.16507	66
65	9.10684	8.98325	8.85723	0.15333	0.16482	0.17654	67
66	8.99092	8.86015	8.72726	0.16411	0.17627	0.18862	68
67	8.86860	8.73047	8.59058	0.17548	0.18832	0.20133	69
68	8.73978	8.59412	8.44712	0.18746	0.20100	0.21467	70
69	8.60436	8.45101	8.29685	0.20005	0.21430	0.22864	71

x	${}^2\ddot{a}_{[x]}$	${}^2\ddot{a}_{[x]+1}$	${}^2\ddot{a}_{x+2}$	${}^2A_{[x]}$	${}^2A_{[x]+1}$	${}^2A_{x+2}$	$x+2$
70	8.46227	8.30113	8.13977	0.21326	0.22824	0.24324	72
71	8.31349	8.14446	7.97592	0.22709	0.24281	0.25847	73
72	8.15802	7.98107	7.80541	0.24154	0.25800	0.27433	74
73	7.99592	7.81105	7.62838	0.25662	0.27380	0.29079	75
74	7.82729	7.63454	7.44502	0.27229	0.29021	0.30783	76
75	7.65228	7.45175	7.25560	0.28856	0.30721	0.32544	77
76	7.47109	7.26292	7.06042	0.30541	0.32476	0.34359	78
77	7.28398	7.06839	6.85986	0.32280	0.34285	0.36224	79
78	7.09126	6.86851	6.65435	0.34072	0.36143	0.38134	80
79	6.89332	6.66373	6.44439	0.35912	0.38047	0.40086	81
80	6.69057	6.45453	6.23052	0.37797	0.39992	0.42075	82

Table D.2 / Table D.3 (Annuities and Insurances, 2nd moment)

1.3 Pension plan service table

x	l_x	w_x	i_x	r_x	d_x
20	1,000,000.00	95,104.16	951.04	0.00	237.42
21	903,707.38	85,946.18	859.46	0.00	217.72
22	816,684.02	77,669.76	776.70	0.00	199.96
23	738,037.60	70,190.03	701.90	0.00	183.96
24	666,961.71	63,430.30	634.30	0.00	169.56
25	602,727.56	57,321.25	573.21	0.00	156.59
26	544,676.51	51,800.25	518.00	0.00	144.92
27	492,213.33	46,810.69	468.11	0.00	134.43
28	444,800.10	42,301.41	423.01	0.00	125.01
29	401,950.68	38,226.16	382.26	0.00	116.54
30	363,225.71	34,543.18	345.43	0.00	108.95
31	328,228.15	31,214.70	312.15	0.00	102.14
32	296,599.16	28,206.58	282.07	0.00	96.05
33	268,014.46	25,487.99	254.88	0.00	90.60
34	242,180.99	23,031.06	230.31	0.00	85.74
35	218,833.88	10,665.31	213.31	0.00	83.45
36	207,871.81	10,130.95	202.62	0.00	83.57
37	197,454.67	9,623.14	192.46	0.00	83.98
38	187,555.08	9,140.56	182.81	0.00	84.67
39	178,154.16	8,682.27	173.65	0.00	85.66

x	l_x	w_x	i_x	r_x	d_x
40	169,205.82	8,246.04	164.92	0.00	86.95
41	160,707.91	7,831.76	156.64	0.00	88.55
42	152,630.97	7,438.00	148.76	0.00	90.46
43	144,955.22	7,063.78	141.28	0.00	92.71
44	137,656.06	6,707.91	134.16	0.00	95.30
45	130,718.70	2,586.13	129.31	0.00	99.73
46	127,904.96	2,530.38	126.52	0.00	106.23
47	125,139.49	2,475.58	123.78	0.00	113.44
48	122,427.60	2,421.83	121.09	0.00	121.44
49	119,795.00	2,369.64	118.48	0.00	130.32
50	117,145.49	2,317.11	115.86	0.00	140.07
51	114,571.66	2,266.06	113.30	0.00	150.88
52	112,042.19	2,215.88	110.79	0.00	162.82
53	109,552.57	2,166.48	108.32	0.00	175.97
54	107,101.92	2,117.84	105.89	0.00	190.46
55	104,687.73	2,069.90	103.50	0.00	206.41
56	102,307.56	2,022.62	101.13	0.00	223.94
57	99,945.13	1,975.68	98.78	0.00	243.17
58	97,644.13	1,929.93	96.50	0.00	264.37
59	95,353.07	1,884.36	94.22	0.00	287.56
60	65,159.77	0.00	61.88	6,187.56	210.42
61	58,702.66	0.00	55.73	5,573.33	211.52
62	52,859.03	0.00	50.17	5,017.46	212.66
63	47,579.08	0.00	45.15	4,515.19	213.87
64	42,805.99	0.00	40.61	4,061.13	215.11
65	38,488.26	0.00	0.00	38,488.26	0.00

Table D.4